



REBUILD MASSACHUSETTS NEWS

A Publication of the Rebuild Massachusetts Program
*The US Department of Energy (DOE) sponsors the Rebuild Massachusetts Initiative
as part of their Rebuild America program.*

TOWN OF BELMONT

The town of [Belmont](#) joined Rebuild America on March 15, 2004. The Division of Energy Resources has been assisting Belmont in their evaluation of [performance contracting](#) as an alternative for financing building upgrades.



Belmont Public Library

In April 2001, the town initiated the “*Working Vision for Belmont’s Future*” goal that includes a commitment to be an environmentally responsible community and ensure the inclusion of green building principles in new construction and renovations. As part of this plan, Belmont is proposing an energy cost reduction of 15% in thirteen municipal buildings by upgrading HVAC and electrical systems.

DIVISION OF CAPITAL ASSET MANAGEMENT

Rebuild America is pleased to announce that the Division of Capital Asset Management joined the program on March 25, 2004.

The Division of Capital Asset Management (DCAM) is the primary state agency responsible for building design, construction, and major renovations of the Commonwealth’s buildings. DCAM provides professional services to state agencies, including oversight of performance contracting. Recognizing that state facilities have a significant impact on resource use and related energy and water budgets, DCAM works to reduce these impacts and save resources wherever possible.

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ENERGY SMART AMERICA

Join fellow leaders and professionals in energy efficiency and renewable energy at Energy Smart America 2004: *Tools and Solutions for States and Communities* hosted by the U.S. Department of Energy Office of Energy Efficiency and Renewable Energy. The conference will provide expert sessions on existing and advanced energy efficiency, renewable energy, and clean fuel technologies and their deployment to federal, state and local projects.

Energy Smart America

May 11-14, 2004

Minneapolis, MN

For more information go to:

<http://www.energysmartamerica.org>

OPEN INVITATION: ENERGY SERVICES COALITION

The Energy Services Coalition (ESC), a Rebuild America strategic partner, is a national educational non-profit organization working at the state and local level to increase energy efficiency and building upgrades through energy savings performance contracting. [Find out more on page 4.](#)

FINANCING ENERGY EFFICIENCY THROUGH PERFORMANCE CONTRACTING

Energy efficiency improvements may be financed through various methods such as internal capital, direct borrowing, lease/purchase agreement, and Energy Performance Contracting. However, in today’s environment, funds are commonly constrained by budget limitations and competing operating and capital investment needs. Some local communities are overcoming this challenge by examining alternative ways to fund these types of projects.

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Financing Energy Efficiency through Performance Contracting

In addition to a lack of funds, cities and towns may delay energy efficiency projects due to the lack of personnel resources or internal expertise to implement the projects. Quantifying the costs of delaying the installation of an energy efficiency project adds a new dimension to the financial decision. Like any investment, an investment in energy conservation should provide a return that justifies its cost.

Although researching financing restrictions that apply to a specific local government is necessary, operational management and design considerations should guide decisions, not just financing.

The most direct way to pay for improvements is to allocate funds from the **internal capital** or operating budget. However, when local funding is limited, it may be more advantageous for municipalities to use outside capital for energy management, and save their own scarce public money for less financially attractive but equally worthy investments that do not have a direct financial return.

Direct borrowing of capital from private lenders is an alternative to internal funding for energy efficiency investments. For example, municipal governments often issue bonds or other long-term debt instruments at substantially lower interest rates than private corporate entities. However, debt financing is administratively more complex than internal funding, and financing costs will vary according to the credit rating of the borrower. Formal debt ceilings imposed by corporate or municipal policy, accounting standards, and/or federal or state legislation may also restrict this approach.

Leasing and lease-purchase agreements provide a means to reduce or avoid the high, up-front capital costs of new, energy-efficient equipment. Commercial leasing corporations, management and financing companies, banks, investment brokers, or equipment manufacturers may offer these agreements. As with direct borrowing, the lease should be designed so that the energy savings are sufficient to pay for the financing charges.

Another alternative is **Energy Performance Contracts (EPC)**. EPCs have been used in the United States and Europe for over 20 Years. Financing or operating leases provided by an Energy Service Company (ESCO) or equipment manufacturer generally pays for the improvements.

What distinguishes these contracts is that they provide a guarantee on energy savings from the installed retrofit measures, and they usually offer a range of associated design, installation, and maintenance services.

In Massachusetts, the enabling statute for this type of contract is M.G.L. Chapter 25A, section 11C for Energy Management Services (EMS). EMS allows a design-build process that provides continuity in conceptualization, engineering & design, construction, and monitoring. The scope of the improvements can range from work that affects a single part of a building's energy-using infrastructure (such as lighting) to a complete package of improvements for multiple buildings and facilities. Flat-fee payments are structured to maintain a positive cash flow to the customer with whom the agreement is made.

An energy performance contract must define the methodology for establishing the baseline costs and cost savings and for the distribution of the savings to the parties. The contract must also specify the method used to determine savings and address contingencies such as utility rate changes and variations in the use and occupancy of a building. While several excellent guides exist for selecting and negotiating energy performance contracts, large or complicated contracts should be negotiated with the assistance of experienced legal counsel.

Some guidelines for a successful ESCo project include:

1. Select an energy service company (ESCO) with a good track record that can provide project design, installation and maintenance. Get references.
2. Negotiate a contract that reasonably limits ESCo profit making and establishes a win-win arrangement. Carefully weigh the pros and cons of shared savings versus fees for services and other contractual arrangements.
3. Require the ESCo to take a "comprehensive approach" to energy conservation—bundling measures with rapid paybacks and measures with longer paybacks—rather than a "cream-skimming approach" (the practice of doing only easy, quick payback measures).
4. Ensure the agreement does not allow the ESCo to sacrifice quality for energy savings.
5. Ask your ESCo to incorporate extended product warranties and personnel training into the bid specifications.

6. Organize an in-house project team to work with the ESCo to choose appropriate energy measures, and perform other tasks when the contract is signed.
7. Work with the ESCo to test new technologies in order to determine their performance and applicability.
8. Design the project and coordinate construction in a way that minimizes disruption of the building's functions.
9. Document both energy and non-energy benefits of your project and publicize its success to the community.

Resources:

[Division of Energy Resources, Energy Management Services in Massachusetts](#)

[Division of Capital Asset Management, Statewide Performance Contracting Program](#)

[Energy Management Basics for Municipal and State Planners and Managers in Massachusetts](#)

[Rebuild America Solution Center](#)

[U.S. Environmental Protection Agency](#)

[Energy Services Coalition](#)

[National Association of Energy Services Companies](#)

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Division of Capital Asset Management

The agency has developed guidelines for incorporating principles of sustainable design into building construction and major renovation projects. DCAM's Sustainable Design Policy/Goals are to minimize life cycle costs, including the use of materials to maximize durability and longevity, use resources efficiently by maximizing energy and water conservation, maximizing use of natural daylighting, use environmentally preferable products, create healthy indoor and outdoor environments for building occupants, workers and communities, and minimize adverse impacts on site development. Project snapshots, including investment, savings, and energy conservation measures are featured on their website at <http://www.mass.gov/cam/statewide/sw-energyconserv06.html>.

DCAM's Conservation Team administers performance-contracting projects to achieve energy efficiency, water conservation, and resource protection in state facilities throughout the Commonwealth. The agency also conducts forums for Energy Services Companies.

DCAM Performance Contracting Project Snapshot



**University of Massachusetts
Boston Campus**

A \$13.4 million project with \$1.9 million guaranteed annual savings upon completion of installation.

Conservation Measures:

- Convert from electric heat and hot water to natural gas
- Lighting retrofits
- Expanded Energy Management System
- Water conservation measures
- Kitchen appliance retrofit
- Lab fume hood replacement
- Motor replacement

**A 2004 National Energy Conferences for Educators is scheduled for:
July 11-15, 2004 Hyannis, Massachusetts
Sponsored by Cape Light Compact**



Energy Services Coalition

The newly formed Massachusetts chapter of the Energy Services Coalition invites all Massachusetts Executive, Facility Directors, and Practitioners to participate in the establishment of this chapter. Members include representatives of the state facilities management agency, the state energy office, energy service companies, finance companies, building owners, and others.

Background

ESC was launched with support from the U.S. Department of Energy's Rebuild America Program. ESC works cooperatively with other organizations where areas of interest overlap. For example, ESC is now a Strategic Partner in the Rebuild America Program. This relationship provides a means of coordinating ESC activities with Rebuild America and its other strategic partners, including the Association of Higher Education Facility Officers, the National Association of State Energy Officials (NASEO), the National Association of Energy Service Companies (NAESCO), the National Association of Housing and Redevelopment Officials, and the National Conference of State Legislatures. Several members of ESC are on the NASEO board, providing an additional connection for cooperation with state energy offices.

The specific purpose of the organization is to provide education and develop and disseminate information to increase the delivery of energy efficiency for the benefit of the general public. ESC provides its members with many resources to facilitate performance contracting projects, energy efficiency improvements, and building upgrades.

Benefits

Informative and interactive meetings provide a forum to address performance-contracting issues and to develop business relationships. These meetings also facilitate state-to-state information exchange on "best practices" in marketing and implementing performance contracting projects.

Workshops on project development, financing, and energy savings performance contracting provide information on new energy-saving technologies and financing options for building and facility owners.

Become a Member

The ESC needs your help and input to their local mission by asking you to: 1) join the ESC National organization, 2) participate in the planning and execution of the initial symposium scheduled for fall of 2004 and, 3) become a sponsor of an upcoming (fall 2004) Symposium on Energy Efficiency and Performance Contracting.

**To become a member or to get more information, please contact the MA ESC treasurer,
Paul R. Smith by email at:**

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Rebuild Massachusetts

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